[METRIC]
A-A-2834
March 28, 1994

COMMERCIAL ITEM DESCRIPTION
URETHANE, WATERBORNE
(LOW VOC, CLEAR)

The General Services Administration has authorized the use of this commercial item description for all Federal Agencies..

1. SCOPE. This description covers a low VOC clear and pigmented waterborne urethane or modified urethane in three gloss levels for application by brush or spray. The coating is intended for use as a topcoat on interior or exterior wood.

2. CLASSIFICATION.

TYPE I- Clear
- Class 1 - Gloss
- Class 2 - Semigloss
- Class 3 - Satin

TYPE II - Pigmented
- Class 1 - Gloss
- Class 2 - Semigloss
- Class 3 - Satin

3. SALIENT CHARACTERISTICS:

Characteristic	Minimum	Maximum	Test
Volatile Organic Content (g/L)	—	250	ASTM D3960
Nonvolatile content, % by weight			
Type I	30	—	ASTM D1644A
Type II	50	—	ASTM D1644A
Drying time, hours			FED-STD-141
Set to touch		1/2	Method 4061
Dry through		24	

3.1 Condition in Container. The material shall be free from foreign matter and readily dispersible to a homogeneous mixture after two minutes of hand stirring.

3.2 Color.

3.2.1 Type I. When coated on the sealed portion of a white Leneta card, the difference between the directional reflectance of the coated card and the uncoated portion of a sealed white Leneta card shall not be more than 2%.

3.2.2 Type II.[2/] At complete hiding, the color shall match the specified FED-STD-595 color within a ΔE of 1. (ASTM D2244)

3.3 Light exposure.[1/] The coating shall withstand 168 hours of ultraviolet A exposure without any film defects . More than 10% change from the original gloss level shall be rejected (ASTM G 53).

3.4 Chemical resistance.[1/] There shall be no discoloration, stain, or whitening after testing the topcoat for the following resistance's. A volume of 3 mL of the chemical shall be dropped on horizontal panels, and allowed to stand for 24 hours. The panels shall then be sponge washed with distilled water and dried with a clean cloth. The chemicals used shall be coffee (prepared with 1 tsp. instant coffee per 250 mL of water at 43°C), vinegar, ketchup, mustard (allow to stand for 1 hour only), 50% ethanol, detergent, butter, and boiling water. The coating shall also be tested for cosmetic stains as specified in ASTM D 2571.

3.5 Adhesion.[1/] The topcoat shall adhere tightly to a panel after tape has been applied and removed from an area cut with a craftsman's knife (ASTM D 3359 A).

3.6 Cold check.[1/] The panel shall exhibit no checking or cracking when exposed to 4 temperature cycles (ASTM D 1211).

3.7 Specular gloss.[2/] The 60 degree specular gloss shall be as specified for the appropriate class (ASTM D 523).

Class 1: 60-85
Class 2: 20-60
Class 3: <20

3.8 Self-lifting.[1/] Recoat the film with the same topcoat 3 hours after initial coating and examine after a period of 2 hours. There shall be no self-lifting or any other evidence of film irregularities.

3.9 Brushing and spraying properties .[1/] When applied on a vertical panel at a wet film thickness of six mils, the topcoat shall show no sagging, running, or fogging, and shall dry to a smooth uniform film free of streaks, blisters, lap marks, and other irregularities.

4. REGULATORY REQUIREMENTS.

4.1 Priority 17 pollutants. The manufacturer shall certify that the product does not contain any of the 17 target chemicals on the EPA 33/50 program list. These chemicals are: benzene, cadmium & compounds, carbon tetrachloride, chloroform, chromium & compounds, cyanides, lead & compounds, mercury & compounds, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, nickel & compounds, tetrachloroethylene, toluene, trichloroethane, trichloroethylene, and xylenes.

4.2 Ozone depleting compounds. The manufacturer shall certify that the product does not contain any of the Class I or Class II ozone depleting compounds, as listed in the Federal Register notice of July 30, 1992 (57 Fed Reg. 33753), which include chlorofluorocarbons, halons, carbon tetrachloride, methyl chloroform, hydrochlorofluorocarbons and any other substances designated by EPA regulation at a later date.

4.3 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. QUALITY ASSURANCE PROVISIONS.

5.1 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

6. PACKAGING. Packaging and packing shall be as specified in the contract or order.

7. NOTES.

7.1 Addresses for obtaining copies of referenced documents.
ASTM Standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103. The issue of the ASTM test methods in effect on the date of the solicitation shall be used to determine compliance with these requirements.

Information on the EPA 33/50 program is available from USEPA 33/50 Program (TS-792A), 401 M Street SW, Washington, DC 20460.

7.2 Testing standards and footnotes.

1/ Panels shall be a hardwood plywood. The panels shall be prepared with three coats, each applied at a wet film thickness of 150 microns (6 mils), allowing approximately 2-3 hours of dry time between each coat. The panels shall be allowed to dry overnight.

2/ Panels used shall be Leneta cards, coated as specified in footnote 1 above.

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